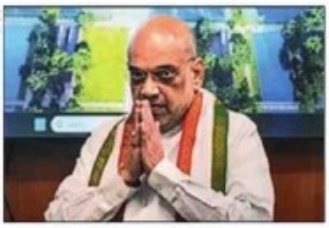
The Times of India- 03- June-2023

Develop disaster-warning software: Shah

Reviews Flood Management Preparedness

TIMES NEWS NETWORK



PTI

SEEKING SOLUTION

New Delhi: Reviewing overall preparedness for flood management ahead of the onset of monsoon, home and cooperation minister Amit Shah on Friday said the five days rain/flood forecast currently being given by India Meteorological Department (IMD) and Central Water Commission (CWC) will be expanded to seven days forecast by next monsoon season so that the flood management in the country can be further improved.

During the high-level meeting on the issue, he directed that a comprehensive software to be developed by March 2024, in which scientific data will be made available to all the early warning agencies immediately for dissemination to the disaster management bodies.

The software will be jointly developed by the ministry of home affairs and the National Disaster Management Authority (NDMA). Shah suggested that foreign expert agencies should also be roped in for developing this software.

The home minister during the meeting also reviewed the long-term measures for formulation of a "comprehensive and overarching policy" to mitigate the perennial flood problems of the country.

He said under the leadership of PM Modi, efforts are being made in the field of disaster management to help minimise the loss of lives and livelihoods during disasters.

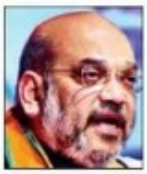
The home minister also suggested that traditional divers in villages should be imparted disaster rescue training under the 'Aapda Mitra' scheme of the government, and directed the officials to continue to strengthen coordination between the central and state agencies to have a "permanent system for forecasting of floods and rise in water levels in major catchment zones/areas" of the country.

He instructed that during the current flood season, the present and forecasted river levels must be monitored on an hourly basis and appropriate measures should be taken by all concerned stakeholders to respond to impending floods.

The Times of India- 03- June-2023

Shah reviews monsoon prep, wants warning tech by next yr

New Delhi: Reviewing overall preparedness for flood management ahead of the onset of monsoon, home minister



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The Times of India- 03- June-2023

MAKE RAINWATER HARVESTING A PRIORITY

Many apartment complexes in the city are now taking Rainwater Harvesting (RWH) seriously as it will help to provide water security to these homes

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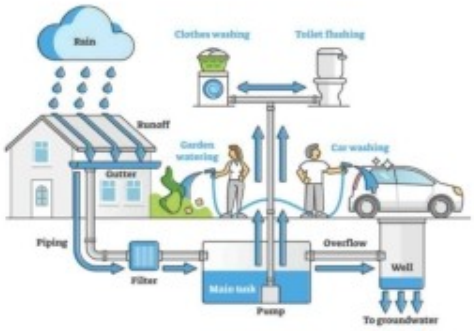
PHOTO: ISTOCK

India is among the most water stressed countries in the world, with NITI Aayog estimating that major cities in the country are likely to run out of groundwater by 2030. A country with over 18 per cent of the world's population, India has been consistently ranked 120 out of 122 countries in the UN's Water Quality Index. While many measures have been taken to address the impending water emergency, including policy reforms and smart financing for last-mile water connectivity, RWH has emerged as the single most efficient and cost-effective means of ensuring water security at the consumers' end. Hence, even though RWH has been mandated through the National Building Code and enforced by almost all municipalities across the country, it is increasingly being demanded by homeowners and Resident Welfare Associations (RWAs) too.

RATIONALE BEHIND RWH

To design a RWH system on residential premises, one must first determine the various water needs of the community and to what extent can stored rainwater meet these needs. Mili Majumdar, MD of a certification and credentialing body, says, "Rainwater falling on rooftops or on hard ground surfaces can either be stored or used to recharge ground water. Recharge structures are constructed to allow rainwater to replenish groundwater. Some of the technologies that can be leveraged to recharge groundwater include abandoned dug wells, handpumps, recharge pits and trenches, gravity head recharge tube wells or shafts. During this process, utmost care should be taken to ensure that polluted water from driveways does not enter recharge pits directly. This can be achieved using prefiltration systems. Regulations exist in most regions to mandate RWH, and therefore, it is necessary to install these structures prior to getting building approvals."

Mandating RWH for new buildings' constructions is one of the most effective regulations, allowing developers to play a pivotal role in ensuring future water security. Sanjay Sethi, member of a real estate body, says, "As people's movement is restricted currently, and demand for RWH has increased, developers have installed RWH in their projects to ensure a continuous water supply. Some projects also have high-capacity Reverse Osmosis (RO) plants to treat water from borewells, which will be recharged by RWH."



KEY TECHNOLOGIES TO IMPROVE FILTRATION SYSTEMS FOR RWH ARE:

- Electro-dialysis reversal system
- Reverse osmosis plant
- UV lighting
- Chlorine disinfection
- Carbon filtration for drinking water

Source: Green Business Certification Inc (GBCI)

MOST PREFERRED SOLUTION

Apart from using RWH systems on premises, citizens and homebuyers can demand additional measures from civic authorities to avert a Day Zero kind of water emergency as seen in countries like South Africa. "Civic authorities may adopt a Public-Private-Partnership (PPP) model to fast-track wastewater recycling projects, construction of recharge pits, and penalty system to enable water conservation. Authorities may also look at re-engineering HVAC systems that help to conserve, recover, and reuse water," says Sethi.

Some other effective practices that can be explored are "preventing leaking supply pipes and systems, installing smart irrigation controls for landscape systems and public parks, using treated wastewater for non-potable uses, reducing water usage in construction sites, promoting labelling of water appliances and, finally, supplying quality water to prevent double filtration by residents who are often seen setting up their own RO systems as they are not confident of the water quality being supplied by their municipalities," concludes Majumdar.

Rainwater harvesting is considered one of the most preferred solutions to save water which comes from natural rain. "The practice is being followed in some parts of the country. The programme initially had starting troubles when governments made it mandatory. Later, it became the norm and most developments which came after that are said to have RWH as part of the builder deliverables and is mandatory for buildings for them to get approval," says Satish K, a developer.

TAPPING IT WELL

- The concept of rainwater harvesting lies in tapping the rainwater where it falls. The rainwater collected can be stored for direct use or can be recharged into the ground water. A major portion of the rainwater that falls on the earth's surface is wasted, as it runs off in streams to rivers and finally to the sea or gets lost in evaporation. On an average, only less than 10 percentage of the total rainfall recharges the ground water aquifer.
- While the norms are in place and the idea is great, there are issues still plaguing due to inefficient implementation. The concept has helped to save water but 50 per cent of these structures still do not follow the best methods of rainwater harvesting.
- The problem could also be due to lack of awareness among people in the city. Most people install an RWH structure due to compulsion. Many don't come forward for maintenance or periodic upkeep of those structure as it involves additional costs. Proper maintenance of RWH should be done by cleaning the dust particles that settle in the pit, refilling it with a new layer if needed and this has to be done at least once in five years.
- This can also help in diverting rainwater to more useful channels. Effective RWH might definitely help in preventing flooding. Water from the rooftops have to be channelled into a percolation pit, where it is filtered and made potable. If a site where construction takes place happens to be a dried lake, rainwater should get diverted to recharge open wells and borewells. This will prevent flash floods.
- Effective RWH will significantly reduce the dependence on water supply from the local municipal body. It can happen only when it is implemented on a large scale with the best RWH structures in place. Governments have to ensure strong enforcement in this regard so as to realise the full potential of RWH system.

The Economics Times- 03- June-2023

CWC DATA FROM ACROSS INDIA

Storage in 146 Reservoirs 6% Lower Than Last Year

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New Delhi: The live storage available in 146 reservoirs across India is down 6% from last year, according to the latest data from the Central Water Commission (CWC). Live storage stands at 94% of the amount in the corresponding period last year. However, it is 121% of live water capacity of the average of the last 10 years for this time of the year. Experts said that despite the healthy levels of the reservoir, rainfall during the sowing period is extremely important as the non-irrigated area in the country constitutes almost 49% of the net sown area essentially dependent upon monsoon.

"A timely pick-up in rainfall in July 2023 (an important month for sowing) is crucial to support the sowing of rain-fed crops such as rice, pulses, cotton etc. Given below-normal rainfall forecast for June 2023, a healthy pick-up of rains in July 2023 is crucial to support timely sowing of kharif crops," said Aditi Nayar, chief economist, head - Research & Outreach, ICRA.

The live storage available in these reservoirs is 52.15 BCM, which is 29% of the total live storage capacity of these reservoirs as on June 1. However, last year the live storage available in these reservoirs for the corresponding period was 55.602 BCM and the average of the last 10 year's live storage was 43.163 BCM.

The numbers of reservoirs having storage exceeding last year are 52 and reservoirs having storage more than average for the last ten years is 79. The data from CWC also said that 13 reservoirs have live storage less than or equal to 20% with respect to last year, while around 29 reservoirs have storage less than or equal to 50% of the year before. The states having lesser storage in percentage terms than last year for the corresponding period are West Bengal, Tripura, Nagaland Bihar, Gujarat, Maharashtra, Uttar Pradesh , Uttarakhand, AP&TG (Two combined projects in both states), Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu.

'Despite the healthy levels of the reservoir, rainfall during the sowing period is extremely important'

States having better storage than last year for the corresponding period are Himachal Pradesh, Punjab, Rajasthan, Jharkhand, Odisha, Madhya Pradesh and Chhattisgarh.

The Indian Express- 03- June-2023

Between 'friends' Cong & DMK, a dam dispute

ARUN JANARDHANAN
CHENNAI, JUNE 2

DAYS AFTER Karnataka's Congress government took over at a ceremony that was attended by Tamil Nadu Chief Minister M K Stalin, the two states, run by parties that are southern allies against the BJP, clashed over a project to supply drinking water to Bengaluru.

War of words

After Karnataka Deputy Chief Minister D K Shivakumar expressed the resolve to build a dam and reservoir on the Cauvery at Mekedatu close to the state's border with Tamil Nadu, DMK general secretary Durai Murugan pointed out that the Mekedatu project was not part of the awards of the Cauvery Water Disputes Tribunal (CWDT) or the ruling of the Supreme Court.

Any unauthorised construction across the river could harm Tamil Nadu and violate both the 2007 final order of the CWDT and the 2018 verdict of the SC, Durai Murugan, who is Water Resources Minister for the state, said.

Mekedatu project

The Mekedatu dam project is located in Ramanagaram district about 100 km south of Bengaluru, close to where the Cauvery enters Tamil Nadu. The project has been contentious for years.

The dam, with a proposed capacity of 48 TMC (thousand million cubic) feet and an estimated cost of Rs 6,000 crore, aims to supply drinking water to Bengaluru and replenish the regional groundwater table.

In November 2014, the Karnataka government under Chief Minister Siddaramaiah invited expressions of interest in the project and, in its 2015 Budget, allocated Rs 25 crore for a detailed project report.

The Mekedatu dam will be larger than the Krishnaraja Sagar project on the Cauvery. The Central Water Commission (CWC) had cleared a feasibility study for the project in 2018.

In his statement this week, Shivakumar said Rs 1,000 crore has been earmarked for the project. In 2018, when he was Water Resources Minister, he had defended the project, saying it would "not come in the way of releasing the stipulated quantum of water to Tamil Nadu, nor will it be used for irrigation purposes". He had said that the Karnataka government was ready to hold talks with Tamil Nadu on the Mekedatu issue.

History of opposition

Tamil Nadu witnessed widespread protests against the dam in 2015, with a statewide bandh that was supported by various stakeholders. The state Assembly passed unanimous resolutions against the project in December 2018 and January 2022.

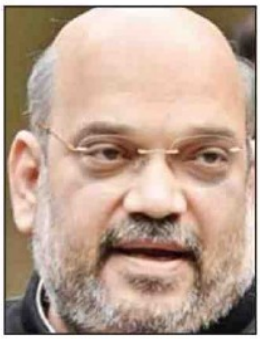
Ahead of the 2016 Assembly polls in Tamil Nadu, Captain Vijayakanth of DMDK had led a delegation of Opposition leaders to meet the Prime Minister on the issue. Siddaramaiah too had led an all-party delegation from Karnataka to the Prime Minister seeking the Centre's cooperation in the project.

In August 2021, Tamil Nadu approached the Supreme Court against the project. Tamil Nadu's key arguments are that Karnataka is attempting to modify the flow of the river by constructing two reservoirs on it.

The action violates the final award of the CRWT, and would impound the flow in the intermediate catchment below the Krishnaraja Sagar and Kabini reservoirs, and Billigundulu, along the border of Karnataka and Tamil Nadu, the state has argued.

Rashtriya Sahara- 03- June-2023

अमित शाह ने आगामी मानसून के संदर्भ में देश में बाढ़ प्रबंधन की तैयारियों की समीक्षा की



नई दिल्ली (एसएनबी)। केंद्रीय गृह एवं सहकारिता मंत्री अमित शाह ने आगामी मानसून के संदर्भ में देश में बाढ़ प्रबंधन की तैयारियों की समीक्षा के लिए शुक्रवार को नई दिल्ली में एक उच्चस्तरीय बैठक की अध्यक्षता की। बैठक में गृह मंत्री ने देश की स्थानीय बाढ़ समस्याओं को कम करने के लिए एक व्यापक नीति तैयार करने के लिए दीर्घकालिक उपायों की भी समीक्षा की।

गृह मंत्री ने कहा कि देश में आपदा प्रबंधन के क्षेत्र में कई प्रयास हो रहे है जिनसे आपदा के दौरान जान-माल के नुकसान को कम से कम करने में मदद मिल सकेगी। उन्होंने मौसम संबंधी भविष्यवाणी अगले मानसून तक मौजूदा 5 से बढ़ाकर 7 दिन करने की आवश्यकता पर बल दिया, जिससे बाढ़ प्रबंधन और बेहतर हो सके। शाह ने बाढ़ और आपदा संबंधी जानकारी का विश्लेषण करने के लिए गृह मंत्रालय और एनडीएमए द्वारा मार्च, 2024 तक एक कॉमन सॉफ्टवेयर विकसित करने के निर्देश दिए जिससे भविष्यवाणी करने वाली एजेंसीज़ को तत्काल वैज्ञानिक डेटा मिलेगा जिसका उपयोग आपदा प्रबंधन ऐजेंसियां कर सकेंगी। उन्होंने कहा कि इस सॉफ्टवेयर को डेवलप करने में विदेशों की विशेषज्ञ एजेंसियों की मदद भी ली जाए। शाह ने कहा कि सरकार की आपदा मित्र योजना में गांवों में उपलब्ध परंपरागत गोताखोरों को भी बचाव का प्रशिक्षण दिया जाना चाहिए।

केंद्रीय गृह मंत्री ने अधिकारियों को देश के प्रमुख जलग्रहण क्षेत्रों में बाढ़ और जलस्तर में वृद्धि की भविष्यवाणी के लिए एक स्थायी प्रणाली बनाने के लिए केन्द्रीय और राज्य एजेंसियों के बीच समन्वय मजबूत करने के प्रयास जारी रखने का निर्देश दिया। उन्होंने निर्देश दिए कि वर्तमान बाढ़ के मौसम के दौरान, वर्तमान और अनुमानित नदी के स्तर की प्रति घंटे निगरानी की जानी चाहिए और तटबंधों की निगरानी, बचाव, अस्थायी आश्रयों सहित उचित उपाय किए जाने चाहिए।

गृह मंत्री ने कहा कि भारत मौसम विज्ञान विभाग और केंद्रीय जल आयोग जैसे विशिष्ट संस्थानों को मौसम और बाढ़ के अधिक सटीक पूर्वानुमान के लिए अपनी तकनीकों का उन्नयन जारी रखना चाहिए। उन्होंने ये भी निर्देश दिए कि एसएमएस, टीवी, एफएम रेडियो और अन्य माध्यमों से जनता तक बिजली गिरने के बारे में आईएमडी की चेतावनी समय पर पहुंचनी चाहिए।